

THE IMPORTANCE OF PLAY IN A CHILD'S EARLY DEVELOPMENT

Diana L. Martin

*Community Welfare Service, Victoria**

A physiotherapist is concerned with the development or restoration of a quality of movement that enables the individual to take advantage of learning experiences and to perform activities of daily living. The paediatric physiotherapist is concerned with the development of children up to school age.

The development of normal movement is a chain of events, with each link being a milestone. This chain begins in the uterus, and does not reach its peak until late in adolescence, with particular physical skills not being fully developed until adulthood. For the chain to be strong each link must be tried and tested. If one link is not attained or poorly practised, then it will be weak and the whole chain may be out of balance.

Gross motor skills

In childhood most gross motor skills are practised through play, and the term 'out-door play' appears to emphasize the popular belief that outside activities are purely for recreation, whereas, in fact, they are important as learning opportunities. Personal experience as a paediatric physiotherapist in an early childhood development programme has led to a belief that this chain of events is *not* occurring as naturally as in previous generations.

Our modern lifestyle and adult aspirations for children seem to put a strain on certain links. Once a child can walk, the emphasis jumps to the acquisition of the skills of reading, writing and arithmetic. It is not generally understood that to learn these subjects more easily, infants must first learn the skills of coordination, perception of size and shape, body size and positions in the space around them. Children need the opportunity to practise their motor skills before they attempt the finer skills.

Regular practice of gross motor skills within the pre-school has been found to both maximize the physical development of the normal child, and improve the skills of the child with movement

problems. This alleviates the need to help the child with a problem apart from the group. A 'motor' programme for both indoor (for wet weather) and outdoor activities appears in Appendix 1.

This programme is being followed at 42 pre-schools, for 4–6 weeks in the second term of the year, which appears to be sufficient time to achieve the objective.

Children may have in a minor degree any of a long list of problems. Those of most concern to a physiotherapist are lack of coordination and uneven development.

It is often the uneven rate of development that identifies the child with a movement problem, resulting in one area needing more or less stimulation. Some children will find extra stimulus themselves and use it constantly, such as head banging or jiggling. It is important to notice this and to find out the reason. Other children may develop a splinter skill whilst the basic state has not been altered and each new skill will need to be acquired with more effort. Others will try to avoid a problem by not experiencing it, for example a child who never climbs. Various techniques are available, such as gentle massage, swings, swimming or trampolining to manage the presenting problems.

Within the gross motor programme have been incorporated all the motor skills a child should have by the age of 4 years:

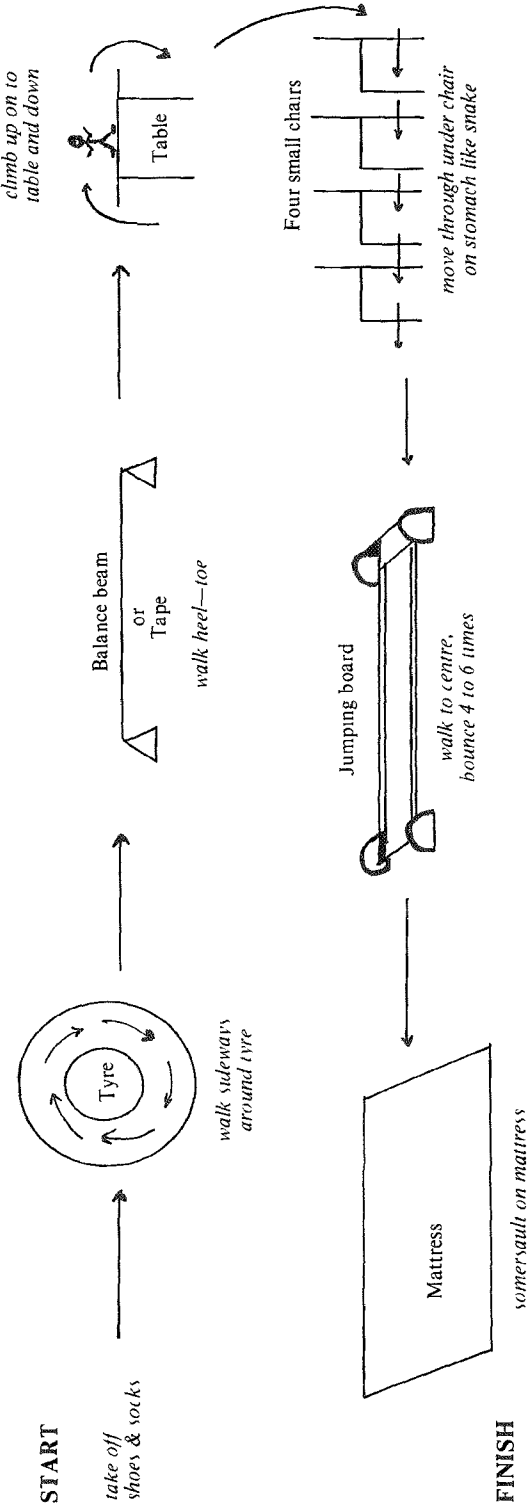
- walking—with a good erect posture, relaxed shoulders and arms;
- running—with an even tread, and with the ability to stop and start and change direction when requested;
- walking on the heels—and even more importantly on the toes, without shoes and socks, preferably outside;
- standing on each leg separately for 3–5 seconds;
- hopping on either leg;
- walking along a straight line (heel-toe), ie balance walking;
- picking up objects from the floor by bending at the waist;

Diana Martin graduated from the Middlesex Hospital, London, in 1964 with a Diploma in Physiotherapy. She is a member of both the Chartered Society of Physiotherapy in England, and the APA. She is currently working as sole physiotherapist at the Community Health and Welfare Centre in Greensborough. Her special professional interest is the assessment and treatment of children with problems of a physical nature, from the minimal to the severe.

** This paper is published with the consent of the Health Commission of Victoria.*

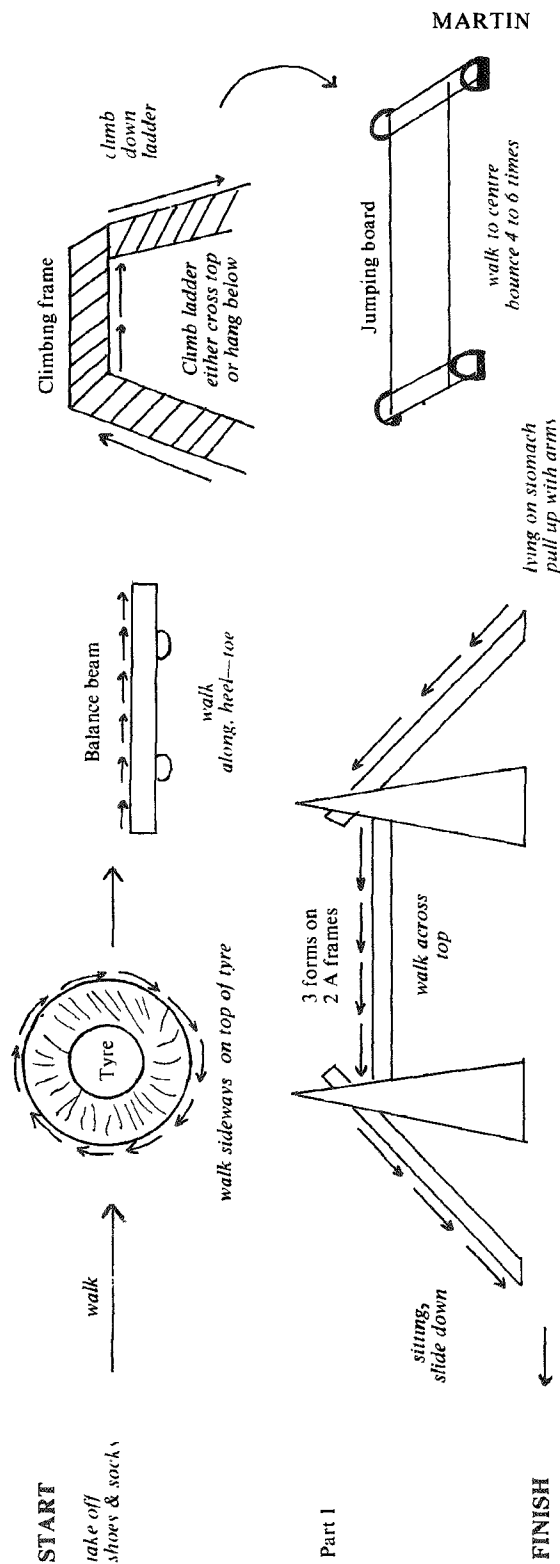
APPENDIX I

INDOOR CIRCUIT



APPENDIX I (CONT.)

OUTDOOR CIRCUIT



Part II — Children spread out in a group

Practice	• running
	• hopping
	• standing on one leg
	• skipping
	• jumping with two feet together
Games	• 'Simon says' (children should put their arms or legs in mirror image of teacher)
	• each child to blow up balloon and tie with string, then use balloons for throwing and catching or punchball
To end	• ask all children to spin in one direction 8 to 10 times

PLAY IN EARLY DEVELOPMENT

- riding a tricycle, using the pedals;
- climbing stairs—one foot on each succeeding step, both up and down;
- climbing ladders and trees without fear;
- throwing a 7.5 cm ball and catching a 25cm ball;
- kicking a football with either foot;
- hanging from the monkey bars—most children can cross to the other end;
- jumping with two feet together;
- bouncing on a jumping board with enjoyment;

In addition, they should not be afraid of heights or of being spun or of playing games without vision.

Sensory skills

The other skills needing practice during the pre-school year are those of a sensory and perceptual nature. Most activities that increase children's awareness and interpretation of these skills can be practised in both outdoor or indoor play situations.

Most people are aware of the need for accurate visual and auditory discrimination but the less obviously used senses of smell, taste, tactile and kinaesthetic awareness, are also important.

A summary of the motor, sensory and perceptual skills that need to be practised, the reasons why, and suggestions on how they can be practised appear in Appendix 2.

Conclusion

During the pre-school year there is a tremendous opportunity to ensure that stimulation is given to all the systems that are important to the developing child. Children should be encouraged to try out new skills until they achieve satisfaction in their accomplishment. If this idea is carried through successfully, then all children should start at school with their skills developed to a maximum, and with an alert eager attitude of mind ready to take part in the new experiences they will be offered.

APPENDIX 2

A summary of motor/sensory/perceptual skills practised and learnt at the pre-school

What	Why	How
<i>Whole body movement</i>	Using the body to discover space and direction freely and with auditory instruction	Running, stopping, turning, avoiding, chasing games, trampoline, in, out and jumping off climbing frame, crawling through barrels
	Strengthening muscles	Pushing, pulling, carrying, hanging, wheelbarrowing, tug o'wars with towels, ropes
	Coordination of eye and hand and eye and foot	Kicking and catching balls
	Coordination of patterns of movement, limbs taking turns (alternating patterns):	Peddalling bicycle, skipping crawling
	limbs together (symmetrical)	Pushing pram, steering, swinging
	limbs against each other (opposing)	Clapping, stamping
<i>Fine hand movement</i>	limbs across the body	'Simon says, bat and ball, playing windmills, throwing balls from side to side
	Self confidence from being able to do things	Break down activity into steps, making each step a goal
	Better control of eye and whole arm movements	Hammering, pouring water, stacking blocks, construction and fitting toys
	Coordination work with finger (particularly index) and thumb	Bead threading, peg board, sorting buttons, screwing toys
<i>Sensory skills — looking</i>	Using tools in fine work	Paintbrush, pencils, crayon, scissors, pasting, colouring small areas
	Strengthening and awareness of individual finger movements	Playdough, sand, clay, finger painting, papier mache, finger puppets
	Following moving objects smoothly with the eyes	Torch across a ceiling, marble track, bubbles, balloons, mobiles, rolling toys, balls, mechanical toys

MARTIN

	Moving eyes quickly to search	Spotting games, 'I Spy', finding things in pictures
	Fixing eyes on one spot for a reasonable time	Storytime pictures. remembering games on a tray
	Understanding what we see; colour	Sorting and matching colour toys, colour-spotting games
	shape	Form boards, jigsaws, felt boards, paints, shape making with construction sets, clay, sewing cards
	length and size	Graded toys and blocks then graded jigsaws
	distance, position and order	Pegboard patterns, small cars, sets of farm and zoo animals, simple card games, 3-dimensional block construction
<i>Touching and being touched</i>	Texture	Fur toys etc, sand, playdough, clay, collecting shells, leaves and so on, lentils, rough and smooth objects, barefoot play
<i>Body awareness</i>	Temperature	Waterplay, ice
<i>Personal space</i>	Pressure of hard and soft	Squeeze toys, clay dough, water from taps and bottles
	Recognising objects by touch	Hiding games in water with soap suds and in sand.
	Contact with other people and their space	Cubby houses, huddling in a small circle, going through a blanket or hessian tunnel
<i>Taste and smell</i>	Describing sweet, sour, bitter and salt	
	Recognizing differences between smells	Bottles of perfume, powder, mothballs, spices
<i>Feeling movement (kinaesthesia)</i>	The 'feeling' we get from movement	Trampoline, swings, slide, see-saw, a tyre swing, spinning in a hammock
	Knowing yourself and the position you are in	Naming body parts, body jigsaws dolls, 'Simon says', dancing, drawing around hand and body, getting into funny positions, playing 'Twister', mirrors, playing statues
	Balancing	Giddy games, walking on lines and boards, hopping, throwing balls, spinning on tyre
	Feeling stretch and compression of joints during movement	Pushing and pulling toys, carrying and lifting
<i>Hearing</i>	Identifying sounds	Stop and listen; naming sounds heard, cars, birds, footsteps, describing unidentified sounds; listening to pin or rubber drop on floor
	Awareness of volume	Identify common sound recorded on tape
	Awareness of pitch	Listen to loud and soft sounds ('Which is louder?')
	Localization of sound	Given a note from tuning fork or recorder; hunt for something that makes the same sound; fill a glass with water and tap for note; fill another glass till it makes the same sound
<i>Rhythm</i>	Recogniton of rhythm	Eyes shut, sitting on floor, member of group tiptoes silently round ringing bell at intervals, children point to location of sound
	Response to rhythm	Gallop, run on tiptoe, giant strides to appropriate music or drum beats
		Repeat short clapping and stamping sequences eg 3 slow 2 fast 2 slow
		Trees swaying in the wind, butterflies flying, horses galloping, Goldilocks skipping, tired old man trudging home all with and without music

PLAY IN EARLY DEVELOPMENT

<i>Imaginative play</i>	Learning to enjoy playing along and with independence	Needs someone to 'show how' and encourage but who does not interfere
	Learning self absorption and to ignore outside distractions	With a quiet corner and few interruptions
	Getting on without needing expensive toys	Using cloth scraps, odds and ends, paint, playdough
	Gaining confidence by trying-out 'real' situations in play	'Home' corner, dolls house, puppets
	Having a chance to do or be anything and forgetting the 'real' world	Dress-up box, furniture to rearrange, cubby corners, farm and zoo animals
	Having more friends because some are imaginary	Storytime
<i>Social skills</i>	Learning how to get on with others	Water play, sandpit, games for two and group games
	Experience in understanding the messages of gesture, touch, facial expression and voice inflection	Mime, charades, make-believe play
	Understanding an individual's responsibility to a group	Cleaning up, waiting turns, sharing and cooperation in group activities, sitting still
	Joining in	Bringing something to show, telling about something, singing and musical activities